

Appendix C: Connection diagrams and external connectors pin assignment

This appendix provides connection diagrams and pin assignment information for all connectors interfacing with external equipment.

Figure 27
Single LCI connection diagram (local site connections)

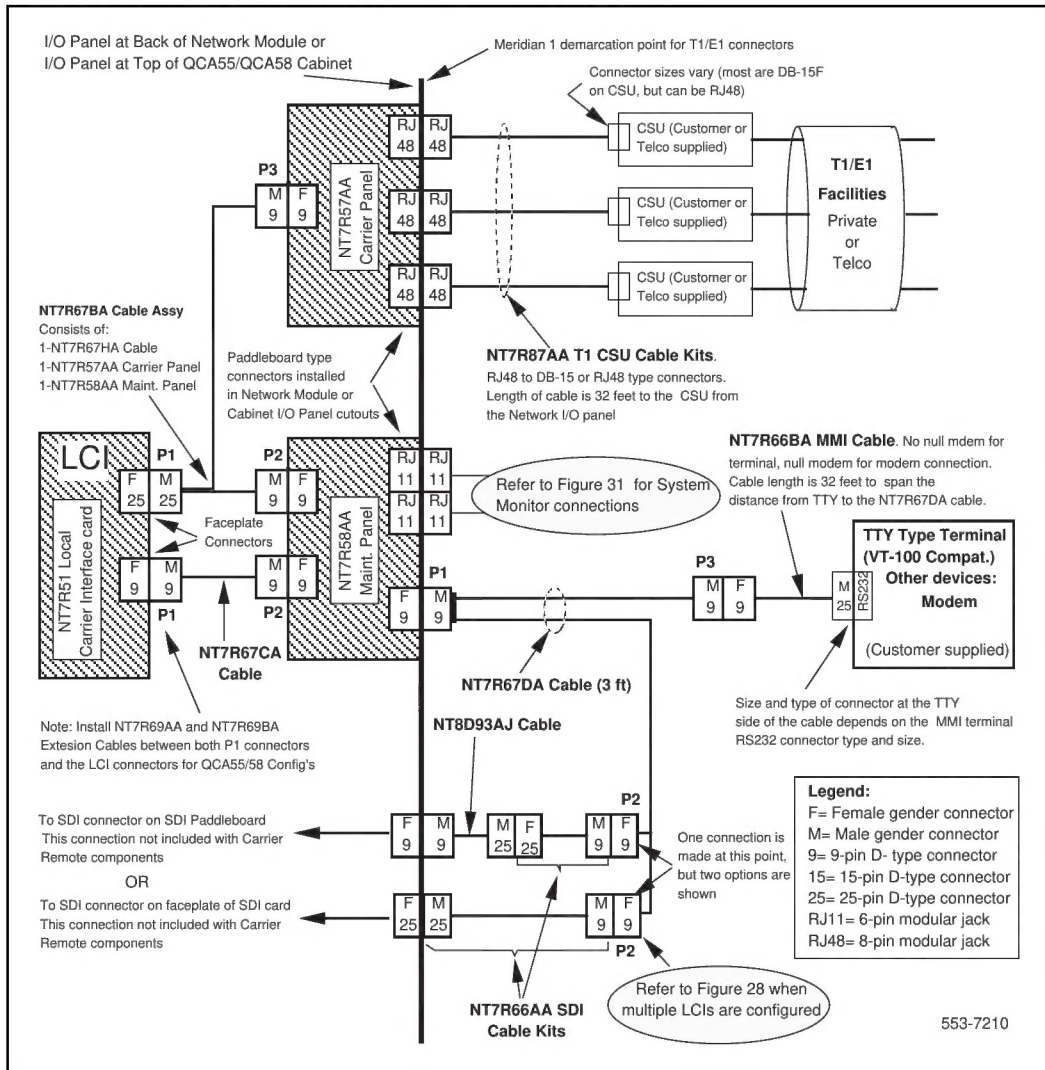


Figure 28
Multiple LCIs connection diagram (local site daisy-chain connection)

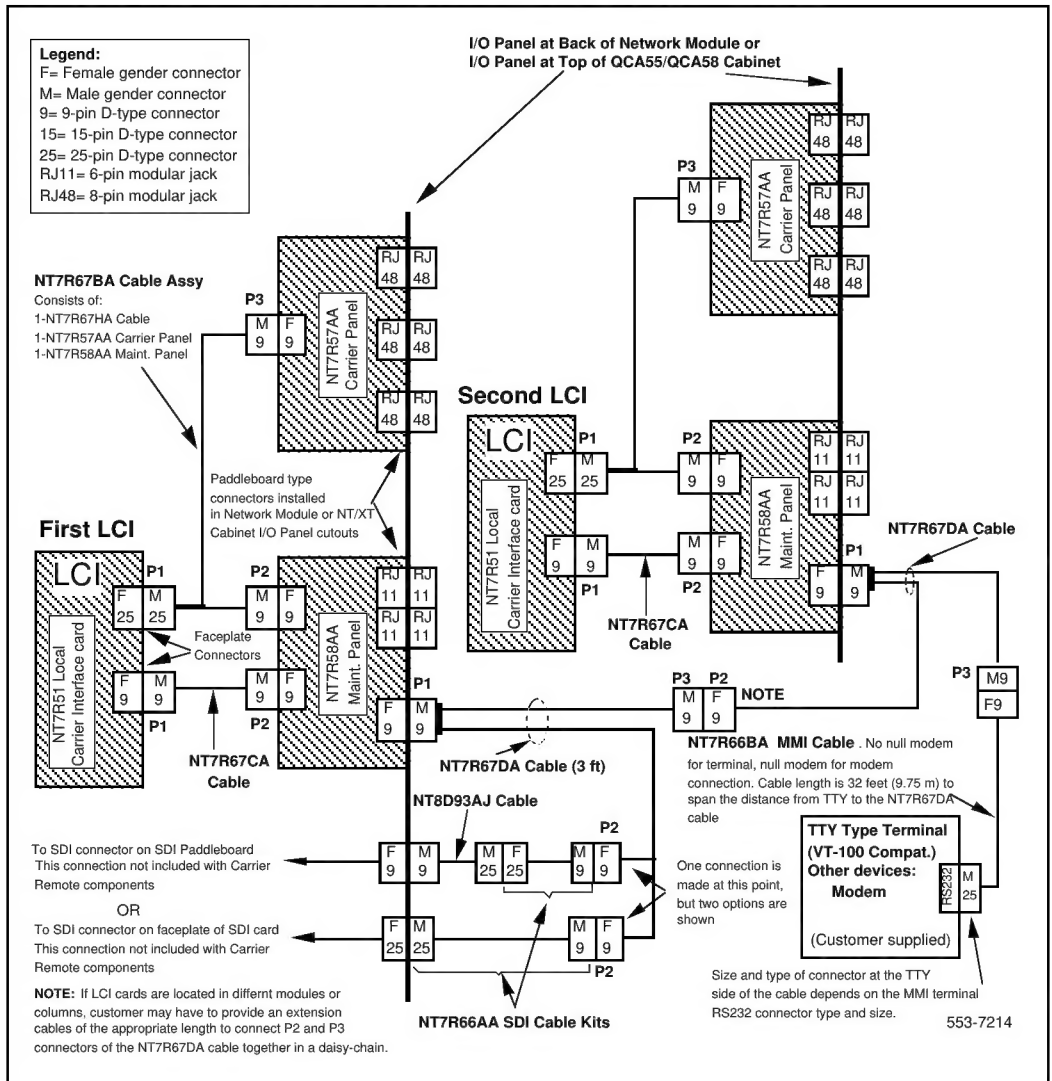


Figure 29
Remote Carrier IPE IPE module connection diagram (single RCI configuration)

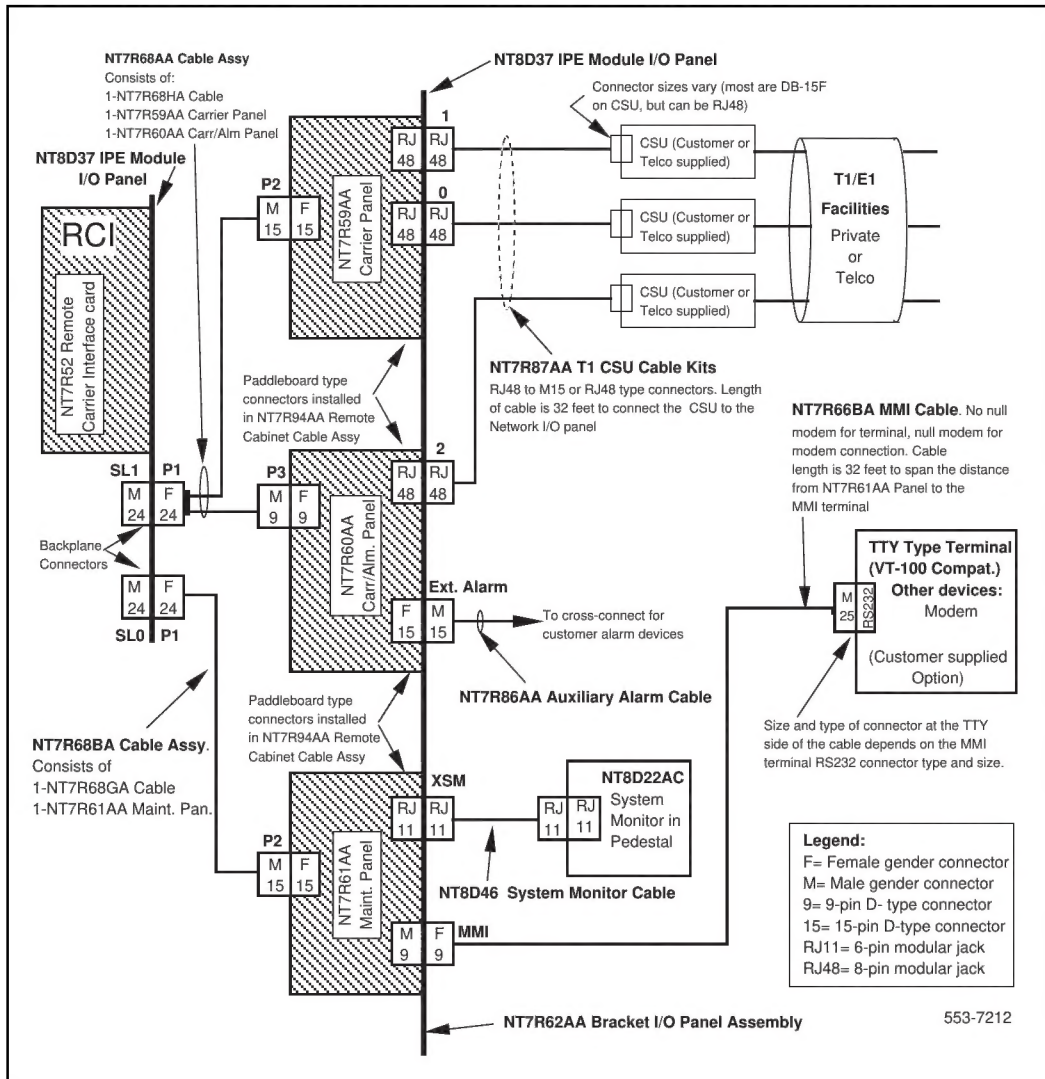


Figure 30
Remote Carrier IPE cabinet connection diagram (single RCI configuration)

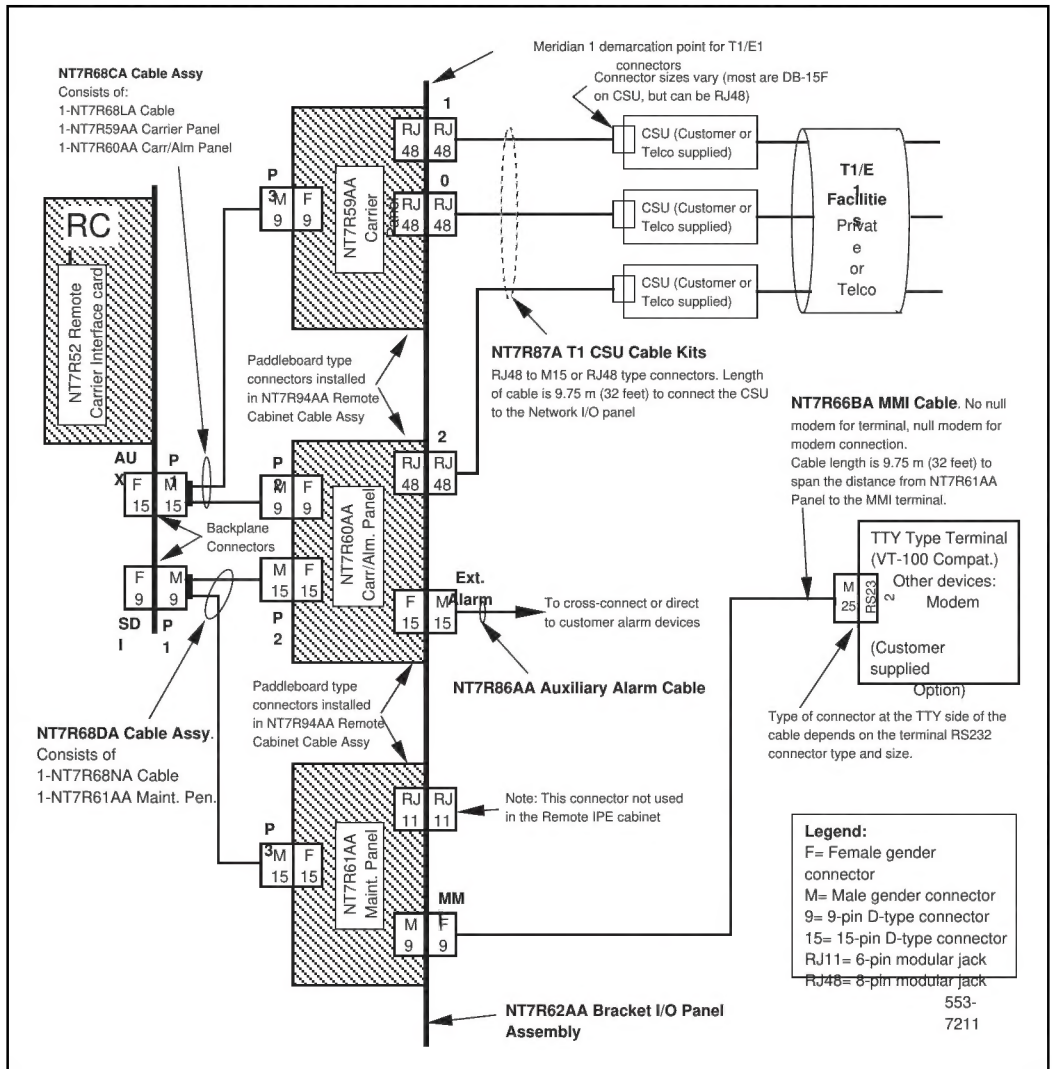
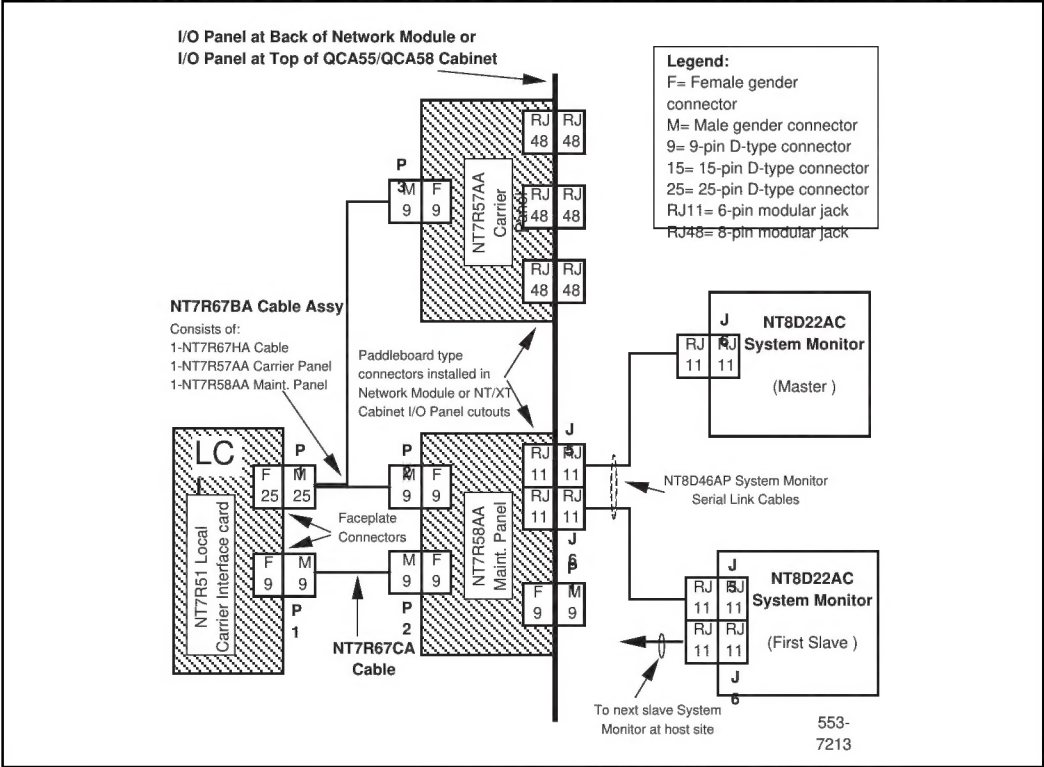


Figure 31
Local site system monitor connection diagram (single and multiple LCI configuration)



It also provides the pin assignment for the NT7R57DA External Maintenance Cable assembly, which connects the Maintenance port on the I/O panel to the SDI port and the MMI terminal.

Table 25
8-pin modular jack pin assignment for all carrier connections

T1/E1 Carrier Link 8-Pin Modular Jack Pinouts		
8-Pin Modular Jack	Signal Name	Signal Description
1	RTIPx	T1/E1 Carrier Receive Tip (from net)
2	RRINGx	T1/E1 Carrier Receive Ring (from net)
3	N/C	No connection
4	TRINGx	T1/E1 Carrier Transmit Ring (to net)
5	TTIPx	T1/E1 Carrier Transmit Tip (to net)
6	N/C	No connection
7	N/C	No connection
8	N/C	No connection
Note: The cable that connects to this connector is provided in the NT7T87AA T1 CSU Cable Kit. The cable is a straight through cables between the Carrier Remote IPE 8-pin modular jack and the Telco demarcation point. If the carrier links are just hardwired without using Telco network, pins 1 and 2 must be turned over (swapped) with pins 5 and 4 respectively at one end of the cable.		

Table 26
NT7R58AA Maintenance Panel 6-pin modular jack system monitor pin assignment for J5 and J6 connectors

System Monitor 6-Pin Modular Jack Pinouts		
8-Pin Modular Jack	Signal Name	Signal Description
J5-1	N/C	No connection
J5-2	XSTXB	Transmit (NEGATIVE)
J5-3	XSTXA	Transmit (POSITIVE)
J5-4	XSRXB	Receive (NEGATIVE)
J5-5	XSRXA	Receive (POSITIVE)
J5-6	N/C	No connection
J6-1	N/C	No connection
J6-2	XMTXB	Transmit (NEGATIVE)
J6-3	XMTXA	Transmit (POSITIVE)
J6-4	XMRXB	Receive (NEGATIVE)
J6-5	XMRXA	Receive (POSITIVE)
J6-6	N/C	No connection
Note: J5 modular jack provides signals towards the Master system monitor and J6 modular jack provides signals away from the Master system monitor.		

Table 27

NT7R58AA Local Maintenance Panel maintenance DCE port DB-9F and NT7R67DA External Maintenance Cable assembly connector pin assignment for P1 DB-9M, P2 DB-9M, and P3 DB-9F connectors

DB-9 Local Maintenance Port and NT7R67DA Cable Connector Pinouts				
DB-9 Pins	NT7R67DA Cable Connectors Pins		Signal Name	Signal Description
1	P1-1	P3-2	MNTX	MMI Transmit
2	P1-2	P3-3	MNRX	MMI Receive
3	P1-3	P2-3	SDITX	SDI Transmit
4	P1-4	P2-2	SDIRX	SDI Receive
5	P1-5	P2/P3 Pin 5	GND	Signal Ground (RS-232)
6	P1-6	P2/P3 Pin 7	REQA	Request from MMI Port
7	P1-7	P2/P3 Pin 9	REQB	Request from SDI Port
8	N/C	N/C	N/C	No connection
9	N/C	N/C	N/C	No connection
—	—	P2-4 to P2-6	DTR/DSR	Pins connected with 30 AWG wire

Table 28
NT7R61 Remote Maintenance Panel maintenance port DB-9 male
connector pin assignment

DB-9 Remote Maintenance Connector Pinouts		
DB-9 Connector Pins	Signal Name	Signal Description
1	N/C	No connection
2	SDITX	SDI Transmit
3	SDIRX	SDI Receive
4	N/C	No connection
5	GND	Signal Ground (RS-232)
6	N/C	No connection
7	N/C	No connection
8	N/C	No connection
9	N/C	No connection

Table 29
NT7R60AA Carrier/Alarm Panel DB-15 HD alarm connector pin assignment for Carrier Remote IPE module

High Density DB-15 Alarm Connector Pinouts			
DB-15 Alarm Connector Pins	Signal Name	Signal Description	Wire Color Code
P1-1	N/C	No connection	N/C
P1-2	N/C	No connection	N/C
P1-3	N/C	No connection	N/C
P1-4	N/C	No connection	N/C
P1-5	N/C	No connection	N/C
P1-6	GND	Ground Return	Green
P1-7	ALM2	Customer External Alarm Input 2	Brown
P1-8	N/C	No connection	N/C
P1-9	N/C	No connection	N/C
P1-10	GND	Ground Return	See Note
P1-11	ALM1	Customer External Alarm Input 1	Blue
P1-12	ALM3	Customer External Alarm Input 3	White/Blue
P1-13	N/C	No connection	N/C
P1-14	N/C	No connection	N/C
P1-15	N/C	No connection	N/C
Note: This connection is jumpered to pin 6 inside the P1 DB-15 connector hood. No external voltage should be placed across the alarm inputs.			

Table 30
NT7R60AA Carrier/Alarm Panel DB-15 HD alarm connector pin assignment for Carrier Remote IPE cabinet

High Density DB-15 Alarm Connector Pinouts			
DB-15 Alarm Connector Pins	Signal Name	Signal Description	Wire Color Code
P1-1	N/C	No connection	N/C
P1-2	N/C	No connection	N/C
P1-3	N/C	No connection	N/C
P1-4	N/C	No connection	N/C
P1-5	N/C	No connection	N/C
P1-6	GND	Ground Return	Green
P1-7	ALM2	Customer External Alarm Input 2 (5 V)	Brown
P1-8	-48 V	-48 V for PFTU	White/Brown
P1-9	PFTS	Power Fail Transfer Signal	White/Green
P1-10	GND	Ground Return	See Note 1
P1-11	ALM1	Customer External Alarm Input 1 (5 V)	Blue
P1-12	ALM3	Customer External Alarm Input 3 (5 V)	White/Blue
P1-13	BTRN	Battery Return for PFTU	Orange
P1-14	N/C	No connection	N/C
P1-15	N/C	No connection	N/C
Note: This connection is jumpered to pin 6 inside the P1 DB-15 connector hood. This connector is used to connect the NT7R87AA T1 CSU Cable Kit.			

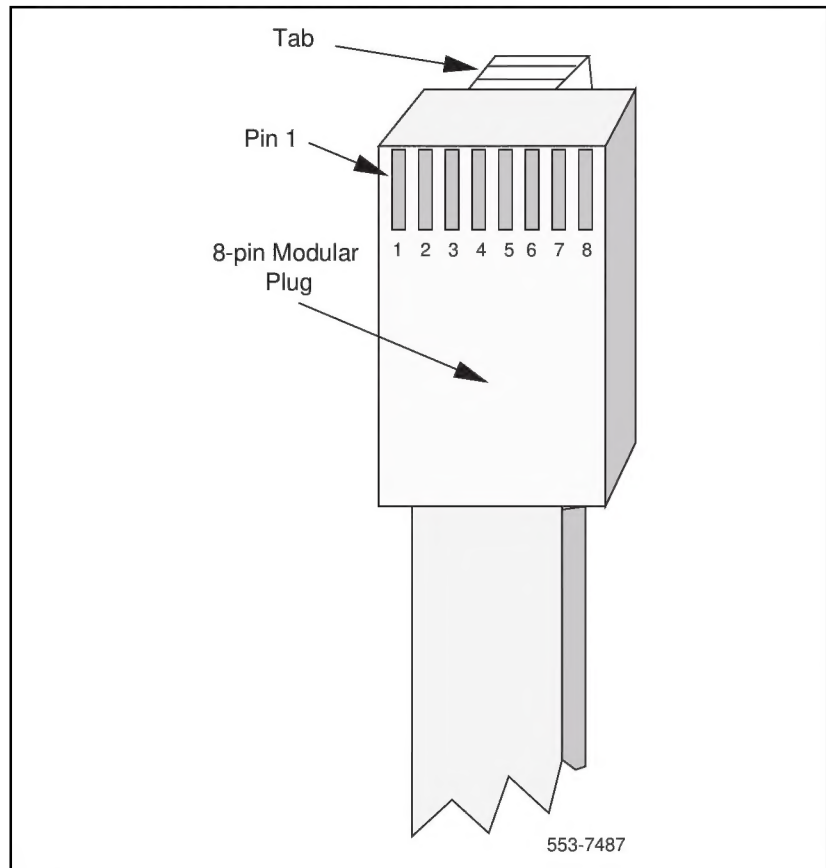
[Table 31](#) provides the pin assignment relationship between the 8-pin modular jack and the DB-15 connectors to provide a connection between the Local Carrier Interface and Remote Carrier Interface to the CSU.

Table 31
Local and Remote Carrier IPE to CSU cable (NT7R87AA) pin assignment

Carrier Panel 8-pin Modular Jack to CSU DB-15 Pin Assignment			
8-pin jack Pins	DB-15 Pins	Signal Name	Signal Description
1	11	RTIPx	Carrier Receive Tip (from network)
2	3	RRINGx	Carrier Receive Ring (from network)
4	9	TRINGx	Carrier Transmit Ring (to network)
5	1	TTIPx	Carrier Transmit Tip (to network)
Note: If the carrier links are just hardwired without using Telco T1 or E1 carrier links, the 8-pin modular plug pins 2 and 1 must be turned over (swapped) with pins 4 and 5 at one end. However, if you are using a T1 or an E1 Telco network, the network provides that turnover.			

Figure 32 is showing the 8-pin modular plug pin positions from left to right when the tab is in the back.

Figure 32
RJ48-type 8-pin modular plug pin assignments



Note: If wires are color-coded, hold modular plugs at both ends in the same orientation and verify that the cable is straight through wired when the color-coded wires are in the same pin position for both 8-pin modular plugs. For flat silver satin cable, verify straight through wiring when plug at one end faces up and at the other end faces down. Also verify that pins 1, 2, 4, and 5 are wired at both ends.